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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/811,641	03/19/2001	Eise C. Dijkmans	PHN 15,582B	9968
24737	7590	09/20/2004	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			VO, DON NGUYEN	
			ART UNIT	PAPER NUMBER
			2631	

DATE MAILED: 09/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/811,641

Applicant(s)

DIJKMANS, EISE C.

Examiner

DON N VO

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 18 and 19 is/are rejected.
- 7) ☒ Claim(s) 5-17 and 20 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 08/754,660.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Drawings

1. The drawings are objected to because there are no detailed description of elements 28 and 35 of figure 1. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The abstract of the disclosure is objected to because it has plural paragraphs. Correction is required. See MPEP § 608.01(b).

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3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. Applicant is required to provide headings into the specification in order to conform with 37 C.F.R. 1.77(b).
5. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in

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upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

6. The disclosure is objected to because of the following informalities:

On page 6, line 21, "os" should be changed to --is--.

On page 7, line 5, "isa" should be changed to --is--.

Appropriate correction is required.

Claim Objections

7. Claims 5-17 and 20 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from another multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 5-17 and 20 have not been further treated on the merits.

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claim 19 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 19 is directed to the structure of the transmission ***signal*** per se.

Double Patenting

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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11. Claims 1-4, 18 and 19 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,272,182. Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 1 of U.S. Patent No. 6,272,182 covers and encompasses the limitations of the respective claims 1-4, 18 and 19 of the instant application. Moreover, it is well settled that the omission of an element and its function is an obvious expedient if the remaining elements perform the same function as before. In re Karlson, 136 USPQ 184 (CCPA 1963).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1-4, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lokhoff (U. S. Patent No. 5,323,396) in view of Ramirez (U. S. Patent No. 5,627,536).

As per claim 1, Lokhoff teaches a digital audio transmission system having a transmitter and receiver in which the receiver has an input means for receiving a digital audio signal and receiving an information word indicating a specific word length as described in column 3, lines 18-31 and a second information word indicating a specific

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sampling rate as described in column 4, lines 17-39. In addition, Lokhoff teaches in column 2, lines 9-23, that the sampling frequency values may include 44.1 kHz and 48 kHz. Lokhoff does not teach that the sampling rate is oversampled at a rate much higher than the original sampling frequency. However Ramirez teaches in column 1, lines 11-24 oversampling at a rate much higher than the original signal. Although the references do not teach a specific sampling rate of $2^p \cdot F_s$, where p is an integer larger than zero, this formula is implied in the concept of oversampling with regards to the Nyquist sampling theorem, which is a well known concept in digital signal theory, in which a signal must be sampled at a rate higher than twice F_s in order to avoid the problem of aliasing. The use of oversampling at rates specifically at powers of two times F_s is preferable in a digital system in order to simplify implementation since digital systems operate with numbers that are based on powers of 2. Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention to oversample the original signal in order to increase the quality of the encoded signal. That is, the problem of aliasing is eliminated.

As per claim 2, the rejection for claim 1 reads on claim 2 with the further disclosure by Lokhoff in column 2, lines 9-23, that the sampling frequency values may include 32 kHz, 44.1 kHz and 48 kHz.

As per claim 3, the rejection for claim 1 reads on claim 3 with the further disclosure by Lokhoff in column 7, lines 30-54, that digital audio signal is channel encoded to obtain a serial data stream.

As per claim 4, the rejection for claim 1 reads on claim 4 with the further disclosure by Lokhoff in column 5, lines 39-46, that the channel encoding may comprise error correction encoding at least the digital audio signal to obtain a serial data stream.

As per claim 18, Lokhoff teaches a method of transmitting a digital audio signal comprising a transmitter and receiver to perform the steps of receiving a digital audio signal and receiving an information word indicating a specific word length as described in column 3, lines 18-31 and a second information word indicating a specific sampling rate as described in column 4, lines 17-39. In addition, Lokhoff teaches in column 2, lines 9-23, that the sampling frequency values may include 44.1 kHz and 48 kHz. Lokhoff does not teach that the sampling rate is oversampled at a rate much higher than the original sampling frequency. However Ramirez teaches in column 1, lines 11-24 oversampling, at a rate much higher than the original signal. Although the references do not teach a specific sampling rate of $2^p \cdot F_s$, where p is an integer larger than zero, this formula is implied in the concept of oversampling with regards to the Nyquist sampling theorem, which is a well known concept in digital signal theory, in which a signal must be sampled at a rate higher than twice F_s in order to avoid the problem of aliasing. The use of oversampling at rates specifically at powers of two times F_s is preferable in a digital system in order to simplify implementation since digital systems operate with numbers that are based on powers of 2. Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention to oversample the original signal in order to increase the quality of the encoded signal. That is, the problem of aliasing is eliminated.

As per claim 19, Lokhoff teaches a digital audio transmission signal having an information word indicating a specific word length as described in column 3, lines 18-31 and a second information word indicating a specific sampling rate as described in column 4, lines 17-39. In addition Lokhoff teaches in column 2, lines 9-23, that the sampling frequency values may include 44.1 kHz and 48 kHz. Lokhoff does not teach that the sampling rate is oversampled at a rate much higher than the original sampling frequency. However Ramirez teaches in column 1, lines 11-24 oversampling at a rate much higher than the original signal. Although the references do not teach a specific sampling rate of $2^p \cdot F_s$, where p is an integer larger than zero, this formula is implied in the concept of oversampling with regards to the Nyquist sampling theorem, which is a well known concept in digital signal theory, in which a signal must be sampled at a rate higher than twice F_s in order to avoid the problem of aliasing. The use of oversampling at rates specifically at powers of two times F_s is preferable in a digital system in order to simplify implementation since digital systems operate with numbers that are based on powers of 2. Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention to oversample the original signal in order to increase the quality of the encoded signal. That is, the problem of aliasing is eliminated.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. References Therssen (5,225,787) and Akune et al (5,719,571) are cited because they are pertinent to the oversampling apparatus and method.

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15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DON N VO whose telephone number is (571) 272-3018. The examiner can normally be reached on TUE - FRI (9:00-6:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MOHAMMAD GHAYOUR can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DON N VO
Primary Examiner
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